AMENDMENTS TO THE CLAIMS

1. (Previously Presented) A diversity receiver comprising:

a plurality of demodulation paths for demodulating received signals and outputting demodulated signals;

a power ratio comparator for calculating a power ratio from a first power corresponding to a first received signal on one of the demodulation paths and a second power corresponding to a second received signal on another one of the demodulation paths, and comparing the power ratio with a predetermined threshold value;

a signal selector for selecting one of the demodulated signals output from the plurality of demodulation paths and outputting the selected demodulated signal;

an equal-gain signal combiner for combining the demodulated signals output from the plurality of demodulation paths with predetermined gains, and outputting a combined demodulated signal;

a demodulated signal output unit for outputting one of the demodulated signals, either the selected demodulated signal or the combined demodulated signal, responsive to a result of the comparison in the power ratio comparator; and

an estimated power value calculator that outputs, as said first power, an estimated power value obtained from the result of channel characteristic estimation using a reference signal contained in the first received signal.

2. (Original) The diversity receiver of claim 1, wherein the received signals include a plurality of subcarrier components, and the demodulated signal output unit outputs one of the demodulated signals, either the selected demodulated signal or the combined demodulated signal, for each subcarrier component.

3. (Original) The diversity receiver of claim 1, wherein the threshold value used in the power ratio comparator is determined from a condition that the received-power-to-noise-power ratio value of the demodulated signal obtained by combining the plurality of demodulated signals with equal gain equals a maximum received-power-to-noise-power ratio among the received-power-to-noise-power ratios of the plurality of demodulated signals.

4. (Original) The diversity receiver of claim 3, wherein the demodulated signal output unit outputs either the demodulated signal obtained by combining the plurality of demodulated signals with equal gain or the selected demodulated signal responsive to the power ratio and the threshold value determined under said condition.

5. (Original) The diversity receiver of claim 3, wherein the signal selector selects a demodulated signal with a maximum received-power-to-noise-power ratio among the received-power-to-noise-power ratios of the demodulated signals output from the demodulation paths.

6. (Cancelled)

7. (Previously Presented) The diversity receiver of claim 1, wherein:

the first received signal is an orthogonal frequency division multiplexing (OFDM) signal modulated by an OFDM modulation system; and

the estimated power value calculator uses a pilot signal included in the OFDM signal as the reference signal.

8. (Original) The diversity receiver of claim 1, wherein the first received signal is an OFDM signal modulated by an OFDM modulation system, further comprising:

a subcarrier power calculator that outputs a subcarrier power of a subcarrier component obtained by a Fourier transform of the OFDM signal, as said first power.

9. (Original) The diversity receiver of claim 1, further comprising a gain detector that outputs a power control signal corresponding to a gain adjustment quantity for adjusting said first power to a predetermined power level.

10. (Original) The diversity receiver of claim 9, further comprising an estimated power value calculator that outputs an estimated power value corresponding to a result of channel characteristic estimation using a reference signal contained in the first received signal as said first power, wherein:

the power ratio comparator performs the comparison by using a result of multiplication of the estimated power value by a coefficient determined by the gain adjustment quantity.

11. (Original) The diversity receiver of claim 9, further comprising: a subcarrier power calculator that outputs a subcarrier power of a subcarrier component obtained by a Fourier transform of the first received signal, the first received signal being an OFDM signal, wherein:

the power ratio comparator uses a result of multiplication of the subcarrier power value by a coefficient determined by the gain adjustment quantity as the first power.

12. (Previously Presented) The diversity receiver of claim 9, further comprising a threshold conversion table unit that prestores, and outputs to the power ratio comparator, a threshold value corresponding to the gain adjustment quantity.

13. (Previously Presented) A diversity receiver, comprising:

a plurality of demodulation paths for demodulating received signals and outputting demodulated signals;

a power ratio comparator for calculating a power ratio from a first power corresponding to a first received signal on one of the demodulation paths and a second power corresponding to a second received signal on another one of the demodulation paths, and comparing the power ratio with a predetermined threshold value;

a signal selector for selecting one of the demodulated signals output from the plurality of demodulation paths and outputting the selected demodulated signal;

an equal-gain signal combiner for combining the demodulated signals output from the plurality of demodulation paths with predetermined gains, and outputting a combined

demodulated signal; and

a demodulated signal output unit for outputting one of the demodulated signals, either the selected demodulated signal or the combined demodulated signal, responsive to a result of the comparison in the power ratio comparator;

a gain detector that outputs a power control signal corresponding to a gain adjustment quantity for adjusting said first power to a predetermined power level;

an estimated power value calculator that outputs an estimated power corresponding to a result of channel characteristic estimation using a reference signal contained in the first received signal; and

a pre-combination error correction unit that outputs a number of errors or an error rate obtained as a result of error correction of the demodulated signal output from said one of the demodulation paths before it is input to the demodulated signal output unit; wherein

the power ratio comparator uses the power control signal, the estimated power, and said number of errors or said error rate in comparing the power ratio with the predetermined threshold value.

14. (Previously Presented) A diversity receiver, comprising:

a plurality of demodulation paths for demodulating received signals and outputting demodulated signals;

a power ratio comparator for calculating a power ratio from a first power corresponding to a first received signal on one of the demodulation paths and a second power corresponding to a second received signal on another one of the demodulation paths, and comparing the power

ratio with a predetermined threshold value;

a signal selector for selecting one of the demodulated signals output from the plurality of demodulation paths and outputting the selected demodulated signal;

an equal-gain signal combiner for combining the demodulated signals output from the plurality of demodulation paths with predetermined gains, and outputting a combined demodulated signal; and

a demodulated signal output unit for outputting one of the demodulated signals, either the selected demodulated signal or the combined demodulated signal, responsive to a result of the comparison in the power ratio comparator;

a gain detector that outputs a power control signal corresponding to a gain adjustment quantity for adjusting said first power to a predetermined power level;

an estimated power value calculator that outputs an estimated power corresponding to a result of channel characteristic estimation using a reference signal contained in the first received signal, as said first power;

a pre-combination error correction unit that outputs a number of errors or an error rate obtained as a result of error correction of the demodulated signal output from said one of the demodulation paths before it is input to the demodulated signal output unit; and

an error correction unit that outputs a number of errors or an error rate obtained as a result of error correction of the demodulated signal output from the demodulated signal output unit; wherein

the power ratio comparator uses the power control signal, the estimated power, the number of errors or the error rate output from the pre-combination error correction unit, and the

number of errors or the error rate output from the error correction unit in comparing the power ratio with the predetermined threshold value.

15. (Currently Amended) A diversity receiving method including a plurality of demodulating processes for demodulating a received signal and outputting a demodulated signal, comprising the steps of:

calculating a power ratio from a first power corresponding to a first received signal in one of the demodulation processes and a second power corresponding to a second received signal in another one of the demodulation processes, and comparing the power ratio with a first predetermined threshold value;

counting pre-combination errors to determine a first error rate of a first received signal in one of the demodulation processes and a second error rate of a second received signal in another one of the demodulation processes, and comparing the first error rate and the second error rate with a second predetermined threshold value;

selecting one of the demodulated signals output from the plurality of demodulation processes and outputting the selected demodulated signal;

combining the demodulated signals output from the plurality of demodulation paths with predetermined gains, and outputting a combined demodulated signal; and

outputting one of the demodulated signals, either the selected demodulated signal or the combined demodulated signal, responsive to a result of the comparison in the step of calculating and results of the comparisons in the step of counting pre-combination errors. ~~; and~~

~~calculating, as said first power, and estimated power value obtained from the result of~~

~~channel characteristic estimation using a reference signal contained in the first received signal.~~

16. (New) The diversity receiving method of claim 15, further comprising:

counting output errors in the output one of the demodulated signals to determine a third error rate of the demodulated signal; and

comparing the third error rate with a third predetermined threshold value;

wherein the outputting of said one of the demodulated signals is also responsive to a result of the comparison performed in the step of comparing the third error rate.

17. (New) A diversity receiver comprising:

a plurality of demodulation paths for demodulating received signals and outputting demodulated signals;

a power ratio comparator for calculating a power ratio from a first power corresponding to a first received signal on one of the demodulation paths and a second power corresponding to a second received signal on another one of the demodulation paths, and comparing the power ratio with a predetermined threshold value;

a pre-combination error correction unit that outputs a number of errors or an error rate obtained as a result of error correction of the demodulated signal output from said one of the demodulation paths before it is input to the demodulated signal output unit;

a signal selector for selecting one of the demodulated signals output from the plurality of demodulation paths and outputting the selected demodulated signal;

an equal-gain signal combiner for combining the demodulated signals output from the

plurality of demodulation paths with predetermined gains, and outputting a combined demodulated signal; and

a demodulated signal output unit for outputting one of the demodulated signals, either the selected demodulated signal or the combined demodulated signal, responsive to a result of the comparison in the power ratio comparator and results of the comparisons in the pre-combination error correction unit.

18. (New) The diversity receiver of claim 17, further comprising:

an error correction unit that outputs a number of errors or an error rate obtained as a result of error correction of the demodulated signal output from the demodulated signal output unit; wherein

the outputting of the one of the demodulated signals in the demodulated signal output unit is also responsive to the number of errors or error rate obtained by the error correction unit.